480 mg respectively) before rotation the number of milligrams of each opioid was calculated based on equianalgesic tables using only direct medical costs, further a deterministic sensitivity analysis was performed. **RESULTS:** The results demonstrate that methadone (Amidone ®) generates average savings per patient of $ 84.37 to $ 5,817.00 compared to oxycodone, buprenorphine (PT), fentanyl (PT) and hydromorphone in the three subgroups analyzed, the sensitivity analysis shows that methadone remains a cost-saving option. **CONCLUSIONS:** Using Methadone (Amidone ®) is a cost-saving option for patients with acute and chronic severe pain secondary to cancer in Mexico, from the institutional point of view.

PSY71

REAL-WORLD COST-UTILITY EVALUATION OF MULTIPLE MYELOMA TREATMENTS IN STEM CELL TRANSPLANTED PATIENTS

Gilabert Sotoca M, Schoenenberger Arnaiz JA, Pons Llobet N, Martinez Sogues M, Mangues Bafalluy I, Martinez Castro B

Hospital Universitari Arnau de Vilanova, Lleida, Spain

OBJECTIVES: Multiple myeloma (MM) is an incurable disease with an incidence of 4-7 new cases by 100.000 people. In the setting of the study, 28% of the yearly 25 news cases of MM are candidates to autologous stem cell transplant (ASCT). Because of the lack of real-world economic studies, authors sought to describe the cost per quality-adjusted-life-year (QALY) of the MM treatment in a group of transplanted patients. **METHODS:** An observational retrospective study was performed and included detailed clinical data from a transplanted cohort of patients with MM. All patients received bortezomib based treatments. Costs were evaluated from the payer's perspective and included total drug costs and hospital admission costs. QALYs values were obtained from the CEA Registry of Tufts University. Four health states were considered: complete response (CR), partial response, stability and progressive disease. Time between state transitions was used to calculate QALYs for each patient. **RESULTS:** The study included 17 patients with a mean age of 61,2 years; 12 of them (Group 1) were followed during 2,77±0,24 years and 5 (Group 2) during 1,6±0,19 years. Global complete response rate one year after ASCT was 8/17 (47%) and dropped to 5/12 (41,6%) at two years. For the whole cohort the median of QALY's cost was 56.198€ (IQ range 36.391-70.339). For patients with CR one year after ASCT, the median of QALY's cost was 46.358€ (IQ range 36.299-67.537). For all other patients the median of QALY's cost was 56.676€ (IQ range 39.114-73.613). For Group 1 patients, the median of QALY's cost was 51.278€ (IQ range 36.345-73.613). **CONCLUSIONS:** These results reveal that the actual costs of MM treatment using protocols that include bortezomib are above the 30.000-50.000€ threshold generally admitted in cost-effectiveness studies.

PSY72

ORPHAN DRUG PRICING IN FRANCE: INFLUENCE OF MAIN FACTORS

GRAND H[1], Samson AL[2], Aulois-Griot M[1]

[1]*Université Bordeaux, Bordeaux, France,* [2]*Université Paris Dauphine, Paris, France*

OBJECTIVES: Orphan drugs (OD) require considerable expenditures, which causes difficulties in their market access. For several years, the price of these new therapies has often been criticized and considered as too high. However few studies about OD pricing mechanisms are available. The aim of the paper is to highlight the main factors that influence OD pricing in France. **METHODS:** We collected public prices of 37 products designated as OD and approved by the European Medicines Agency until January 2014. Given that an OD can have several indications, our database contains 49 observations. For each observation, we calculated the ex-factory price without tax (defined per daily dose) defined by summary products characteristics. We also collected different characteristics of these products: improvement in actual clinical benefit (IACB), actual clinical benefit (ACB), number of OD indications, number of comparators drugs, number of competing orphan drugs, therapeutic use, target population, inclusion on the list of medicines reimbursed by National Health Insurance. Ordinary least squares are used to analyse the determinants of OD prices. **RESULTS:** The distribution of OD prices is very heterogeneous, with a minimum of 2.34 euros and a maximum of 2882.08 euros. The average (SD) price is 380.675 euros (687.414). Our main results are that OD prices are significantly lower for OD that do not improve actual clinical benefit (-136%, p=0.024), for OD with only one orphan indication (-80%, p=0.047), and for OD with a high target population (-251%, p=0.000). **CONCLUSIONS:** There is a need to understand OD pricing mechanisms. Our study shows that innovation and research efforts are encouraged by pricing policy.

PSY73

EVALUATION OF USE OF BELIMUMAB IN CLINICAL PRACTICE SETTINGS (OBSERVE STUDY) IN SPAIN: HEALTH RESOURCE UTILIZATION AND LABOUR ABSENTEEISM

Cortés J[1], Andreu JL[2], Calvo J[3], García-Aparicio AM[4], Coronell CG[5], Díaz-Cerezo S[5]

[1]*Hospital Vall d´Hebrón, Barcelona, Spain,* [2]*Hospital Puerta de Hierro, Majadahonda (Madrid), Spain,* [3]*Hospital de Sierrallana, Torrelavega, Spain,* [4]*Hospital VIrgen de la Salud, Toledo, Spain,* [5]*GSK España, Tres Cantos, Spain*

OBJECTIVES: To analyze the health resource utilization (HRU) and labour absenteeism (LA) in Systemic Lupus Erythematosus (SLE) patients treated with belimumab in the Spanish clinical setting. **METHODS:** OBSERVE is a multicenter retrospective medical chart-review study. Twenty-five rheumatologists from Spanish hospitals with >10 SLE patients annually and >5-years of practice experience identified adult SLE patients who had received 6-months of belimumab treatment. In the 6-months pre- and 6-months post-index periods physicians assessed: demographics, comorbidities, SLE disease characteristics, treatment clinical outcomes, HRU and LA data. Index-date is the date of the first infusion. OBSERVE primary endpoint was overall clinical response per physician judgment. Statistical analyses included appropriate tests for paired-samples (parametric/ non-parametric). Two-way P-values 0.05 were considered statistically significant. **RESULTS:** A total of 64 patients were eligible for analysis: mean age 42.7±12 years; female 89%; hypocomplementemia 70% and high anti-dsDNA 69%. After receiving 6-months therapy, 72%, 52% & 27% of patients presented an overall clinical improvement of ≥20%, ≥50% and ≥80%. These improvements were associated with a reduction of steroid use (75% of patients on steroids at belimumab-initiation decreased mean dose from 14.8 to 6.8mg/day; p<0.001) and HRU between the pre/post index periods: emergency-room visits 1.65 to 0.41; p=0.001; unscheduled visits to treating-physician 1.02 to 0.03; p<0.001, visits to other specialists (1.64 to 1.06; p=0.017) and antibody tests (7.78 to 7.53; p=0.47). An increase in HRU was observed for hematological and renal tests (3.14 to 3.52; p=0.045) and (5.95 to 6.59; p=0.024), respectively. Working patients (39%) also showed a reduction in the LA days between the pre/post index periods (25.6 to 5.7 days; p=0.025). **CONCLUSIONS:** Belimumab treatment yielded improved clinical outcomes and a reduction in HRU directly related with SLE management, as corticoid use. Mean number of LA days also showed a substantial reduction, especially important in SLE, mostly affecting young patients.

SYSTEMIC DISORDERS/CONDITIONS – Patient-Reported Outcomes & Patient Preference Studies

PSY74

IMPACT OF PATIENT PROGRAMS ON ADHERENCE IN INFLAMMATION AND IMMUNOLOGY: A GLOBAL SYSTEMATIC REVIEW AND META-ANALYSIS OF PUBLISHED EVIDENCE

Burudpakdee C[1], Khan ZM[2], Gala S[1], Nanavaty M[1], Kaura S[2]

[1]*MKTXS, Raritan, NJ, USA,* [2]*Celgene Corporation, Summit, NJ, USA*

OBJECTIVES: Patient adherence is important for successful treatment in chronic conditions, including inflammation and immunology (I&I) diseases, to improve patient outcomes. Programs and interventions that aim at improving medication adherence play an essential role in optimizing care. This review and meta-analysis assessed the effectiveness of different types of adherence programs in I&I. **METHODS:** A global systematic literature search was conducted and studies were identified from PubMed, conference proceedings, and grey literature. Selection criteria included studies of patient programs in I&I diseases published in English language between January 2008 and September 2013 that reported % of adherent patients. A meta-analysis was performed using a random effects model. Weights, odds ratios, 95% CI, and forest plots were developed for behavioral, informational, and combination interventions. **RESULTS:** Of 29 studies screened, a total of 13 studies were eligible for inclusion in the meta-analysis. Seven studies were in patients with osteoporosis, 4 in ulcerative colitis, 1 in childhood-onset systemic lupus erythematosus, and 1 in rheumatoid arthritis / psoriasis. Overall, patient programs increased adherence (OR = 2.48, 95% CI = 1.68 - 3.64, P < 0.00001) as compared to standard of care or no intervention. Combination interventions that used both informational and behavioral strategies were superior in increasing adherence (OR = 3.68, 95% CI = 2.20 - 6.16, P < 0.00001) compared to interventions using solely a behavioral strategy (OR = 1.85, 95% CI = 1.00 - 3.45, P = 0.05) or only an informational strategy (OR = 2.16, 95% CI = 1.36 - 3.44, P = 0.001). **CONCLUSIONS:** Patient programs and interventions can significantly improve adherence in I&I diseases as compared to standard of care or no intervention. Programs employing a multimodal approach are more effective in improving adherence than either informational or behavioral strategies alone. This in turn may improve patient outcomes.

PSY75

ADHERENCE TO ANTICOAGULANT THERAPY IN CHILDREN HOSPITALIZED FOR PULMONARY EMBOLISM AND DEEP VEIN THROMBOSIS

Singh RR[1], Gupte KP[1], Wilson JP[1], Moffett BS[2]

[1]*The University of Texas at Austin, Austin, TX, USA,* [2]*Baylor College of Medicine/Texas Children's Hospital, Houston, TX, USA*

OBJECTIVES: The American College of Chest Physicians Guideline recommends anticoagulant therapy for at least three months in children with venous thromboembolism. The objectives of the study were to evaluate the medication utilization patterns, and the predictors of adherence to anticoagulant therapy in the pediatric population. **METHODS:** Texas Medicaid medical and prescription claims from June 01, 2007 to September 31, 2012 were extracted for children (<18 years) hospitalized for Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT). The index date was defined as the date of the first prescription of an anticoagulant warfarin (oral) and/or enoxaparin (injectable) given within 14 days after discharge from hospitalization. Patients hospitalized for atrial fibrillation, air/fat embolism, bleeding/coagulation disorder within 90 days of discharge were excluded. Proportion of days covered (PDC≥80% vs. <80%) was used to assess adherence to anticoagulants while controlling for demographics, cause of hospitalization, history of NSAID use, anticoagulant use, malignancy, drug type, and Charlson comorbidity index (CCI). A multivariate logistic regression analysis was used. **RESULTS:** The patients (n=57) had a mean (±SD) age of 14.1 (±4.9) years, were primarily female (54.4%), African American (61.4%), enoxaparin users (54.4%), and had a mean (±SD) CCI of 19.7 (±39.4). The mean (±SD) adherence rates for warfarin and enoxaparin were 85.6% (±22.3%) and 78.2% (±22.7%), respectively. 66.7% were adherent (PDC≥80%) to anticoagulant therapy. The median (Mean±SD) persistence with anticoagulant therapy was 84.6 (71.9±33.3) days. Logistic regression showed that increasing age was significantly associated with adherence to anticoagulant therapy (Odds Ratio=1.3, p=0.0158), after controlling for covariates. **CONCLUSIONS:** Nearly one third of the pediatric patients on anticoagulant therapy after discharge from hospitalization with PE or DVT were non-adherent. Further research is needed to underline the factors responsible for non-adherence in pediatric patients.

PSY76

NEW OBSERVER-REPORTED OUTCOMES TO MEASURE TREATMENT SATISFACTION, COMPLIANCE, PALATABILITY, AND GI SYMPTOMS FOR PATIENTS NEEDING IRON-CHELATION THERAPY

Lasch K[1], Horodniceanu EG[2], Carter JA[2], Dhatt H[2], Bal V[3], Côté I[3], Constantinovici N[4], Herranz RM[4], Malet I[4]